

REMARKS

Applicant has amended the Claims 1-5. Applicant respectfully submits that these amendments to the claims are supported by the application as originally filed and do not contain any new matter. Therefore, the Office Action will be discussed in terms of the claims as amended.

The Examiner has objected to the Claim 5 and pointed out a certain informality. Applicant has amended the Claim 5 to eliminate the informality.

The Examiner has rejected the Claims 1-9 under 35 U.S.C. 112, second paragraph, and pointed out portions of the Claims 1, 2, 3, 4, 6, 7, and 8 which the Examiner believes is indefinite. In reply thereto, Applicant has amended the Claims 1-4 to clarify the language therein. In addition, Applicant respectfully submits that the amendments to Claims 1-4 clarify the language of Claims 6-8 in that there is only a single supporting stand. Accordingly, Applicant respectfully submits that Claims 1-9 comply with the requirements of 35 U.S.C. 112, second paragraph.

The Examiner has rejected the Claims 1-9 under 35 U.S.C. 102(f), stating that the inventor of JP 2004-319958 is different from the present application. In reply thereto, Applicant respectfully submits that the inventors are the same. Unfortunately, however, the translation of the inventor's name contained in the Patent Abstracts of Japan is incorrect. The same characters can be translated at least two ways, and the one in the Patent Abstracts of Japan is incorrect. Therefore, Applicant respectfully submits that they are the same, and respectfully requests that the Examiner withdraw his rejection.

The Examiner has rejected the Claims 1-9 under 35 U.S.C. 102 as being obvious over Orcutt in view of Nihei, stating that Orcutt discloses all limitations of Applicant's invention except for disclosing that the second movable member is rotationally provided on a supporting stand, and a drive section, which drives said second movable member or that one end of said movable member shaft supported by the bonding head; Nehei discloses the use of multiple identical movable members with multiple drive members connecting to the bonding tools; and it would have been obvious to one of ordinary skill in the art to modify Orcutt in view of the teachings of Nihei.

In reply thereto, Applicant has carefully reviewed Orcutt, and respectfully submits that Orcutt is patentably different from Applicant's invention and does not disclose substantially all of the elements. In particular, Applicant respectfully submits that in Orcutt, the pushing force,

which is caused by element 15, is provided via rod 11 and moving parts 12a and 11a to the mounting plate 24 to thus move the ultrasonic horn 17. As a result, if the rigidity of the parts 11a and 12a is lowered, a responsive delay will result and this will create a problem. In contrast thereto, in Applicant's invention, the first and second actuators directly drive the bonding head and no rigidity decrease will occur with time or use of the machine and no delay in the responsiveness will occur. As a result, Applicant respectfully submits that Orcutt, et al. does not provide this advantage of Applicant's invention. Still further, Applicant respectfully submits that the range of movement, which could be provided with element 15, is very small, as is clear from Fig. 4.

Applicant has also carefully reviewed Nihei, et al., and respectfully submits that Nihei, et al. is a spot welding machine and as such, is quite different from Applicant's invention, as well as Orcutt, et al., and is from a different class and subclass. In addition, Applicant respectfully submits that the scale of the operating members of Nihei, et al. is quite different from that of bonding equipment for semi-conductors since Nihei, et al. is utilized for spot welding together automobile bodies and one of ordinary skill in the art for bonding heads for semi-conductor devices would not look to spot welders for automobiles. In addition, Applicant respectfully submits that the motors M2 and M3 shown in Fig. 2 merely move the arms AM12 and AM13 in and out (extend or retract) and nothing more. (See column 3, lines 1-13.)


In addition, then, and specifically as to Applicant's Claim 5, Applicant has carefully reviewed Orcutt, et al. and Nihei, et al., and respectfully submits that there is no teaching therein concerning the coupling or connection point of Applicant's invention through the center of gravity of the bonding head.

In view of the above, therefore, Applicant respectfully submits that not only is the combination suggested by the Examiner not Applicant's invention, but also the combination suggested by the Examiner would not be suggested to one of ordinary skill in the art. Therefore, Applicant respectfully submits that the Claims 1-9 are not obvious over Orcutt, et al. in view of Nihei, et al.

In view of the above, therefore, it is respectfully requested that this amendment be entered, favorably considered, and the case passed to issue.

Please charge any additional costs incurred by or in order to implement this amendment or required by any requests for extensions of time to KODA & ANDROLIA DEPOSIT ACCOUNT NO. 11-1445.

Respectfully submitted,  
KODA & ANDROLIA

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Name

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